

# West Virginia Business & Economic

# REVIEW

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West Virginia University College of Business and Economics

## *The 2007 West Virginia Economic Outlook in a Nutshell*

by George W. Hammond, Ph.D

The West Virginia economy has added 26,600 jobs from the second quarter of 2003 to the second quarter of 2006, with 7,500 of those jobs coming during the last four quarters. This job growth represents a welcome change from the mild, but lengthy, jobs recession which the state weathered during the 2000 to mid-2003 period.

Particularly striking during the last three years has been the rebound in natural resource and mining job growth. This sector added 5,200 net new jobs from mid-2003 to mid-2006. Both coal mining and other mining (including natural gas extraction) generated job gains during the last three years, as strong energy demand contributed to additional production activity in the state.

Construction jobs have also risen quickly during the last three years, rising by 7.0 percent per year. The rising levels of construction activity are also evident from the F.W. Dodge data on the value of construction contracts for the state. According to data through the first half of 2006, the total value of construction contracts is up by 11.2 percent from 2005 and up by 130 percent from 2001.

In contrast to job gains in natural resources and mining and construction, the manufacturing sector has continued to lose jobs. Indeed, this sector has lost 3,300 jobs during the last 12 quarters, which translates into an annual rate of job loss that's faster than nationally (-0.7 percent per year) and faster than the state's manufacturing job losses during the 1990s. Job losses have been largest in chemical products, primary metals, and glass products.

Most service-providing sectors in West Virginia have added jobs during the mid-2003 to mid-2006 period. Education and health care has added 6,200 jobs, with most of those jobs coming in the health care sector. Trade, transportation, and utilities has added 4,800 jobs, with most of those jobs coming in wholesale and retail trade (up almost 4,000 jobs). Leisure and hospitality employment has also increased significantly during the period (adding 4,100 jobs), with both amusements and recreation (including gaming) and hospitality and food service jobs contributing to the overall growth. Professional and business services is once again adding jobs to the state economy (up 2,400 during the last three years), but the gains are coming at a significantly slower rate than during the 1990s.

The outlook for the state, with comparable data for the nation, is briefly summarized in Table 1. The outlook calls for slow state growth during the next five years, at rates well below the national average. State growth is expected to exceed performance during the first half of the decade, but that period included a state recession.

Job growth is expected to be fastest in service-providing sectors, which add an average of 6,200 jobs per year, but the goods-producing sector contributes as well. Within the goods-producing sector, construction generates most of the annual job growth, even as residential construction activity slows during the forecast.

Natural resources and mining jobs stabilize between 27,000 and 28,000 jobs during the period, with other mining employment (including natural gas extraction) expected to add jobs. Coal production and employment growth slow during the forecast period, as increased production in the northern coal fields (with increased investment in pollution abatement equipment translating into increased demand for higher sulfur coals) is offset

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by increasingly difficult mining conditions in the state's southern coal fields.

Manufacturing employment continues to fall during the next five years, although at a significantly reduced rate compared to the first half of the decade. Chemical products, primary metals, and glass products are likely to continue to struggle with intense international competition. However, not all manufacturing sectors are forecast to decline, as employment in wood products, transportation equipment, and plastics are expected to rise during the next five years.

This implies that the state's per capita personal income gap with the nation will begin to expand again during the forecast. Overall, the state is not likely to make much progress in closing the income gap with the nation during the forecast, without fundamental changes in the state's business climate, human capital levels, and underlying macroeconomic growth assumptions.

With job and income growth expected to be below the national average during the period, the state is forecast to add just 9,000 residents during the next five

**Table 1**  
**West Virginia and U.S. Economic Growth**

	West Virginia				Average Annual Growth Rates			
	Actual		Forecast		2000-2005		2006-2011	
	2000	2005	2006	2011	W.V.	U.S.	W.V.	U.S.
Total Nonfarm Jobs (000s)	735.8	746.8	754.8	787.6	0.3	0.3	0.9	1.2
Real Per Capita Income (\$2000)	21,899	23,345	24,096	26,913	1.3	0.7	2.2	2.8
Population (000s)	1,807	1,817	1,821	1,830	0.1	1.0	0.1	0.9
Unemployment Rate* (%)	5.5	5.0	4.5	5.0	-0.1	0.2	0.1	-0.0

\*Growth rate is average annual change.

As usual for both the state and the nation, most of the job gains during the next five years come in service-providing sectors, primarily health care; professional and business services; leisure and hospitality; trade, transportation, and utilities; government; and other services (haircuts, laundry, membership organizations).

Continued but slow employment increases translate into much the same story for income growth in the state. The forecast calls for real per capita personal income to rise by 2.2 percent per year during the last half of the decade, compared to 2.8 percent per year for the nation.

years. This translates into a growth rate of just 0.1 percent per year, which is well below the expected national rate of 0.9 percent per year.

While the baseline state outlook calls for continued growth, there are risks to the forecast. These risks include a national recession, a downturn in coal mining activity, a housing bust (particularly in the Eastern Panhandle), major manufacturing plant closures, and the risks posed by increased competition from gaming establishments in Pennsylvania.

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# *How Strong Is West Virginia's Labor Market?*

## *Unemployment Is Down But Labor Force Participation Is Low*

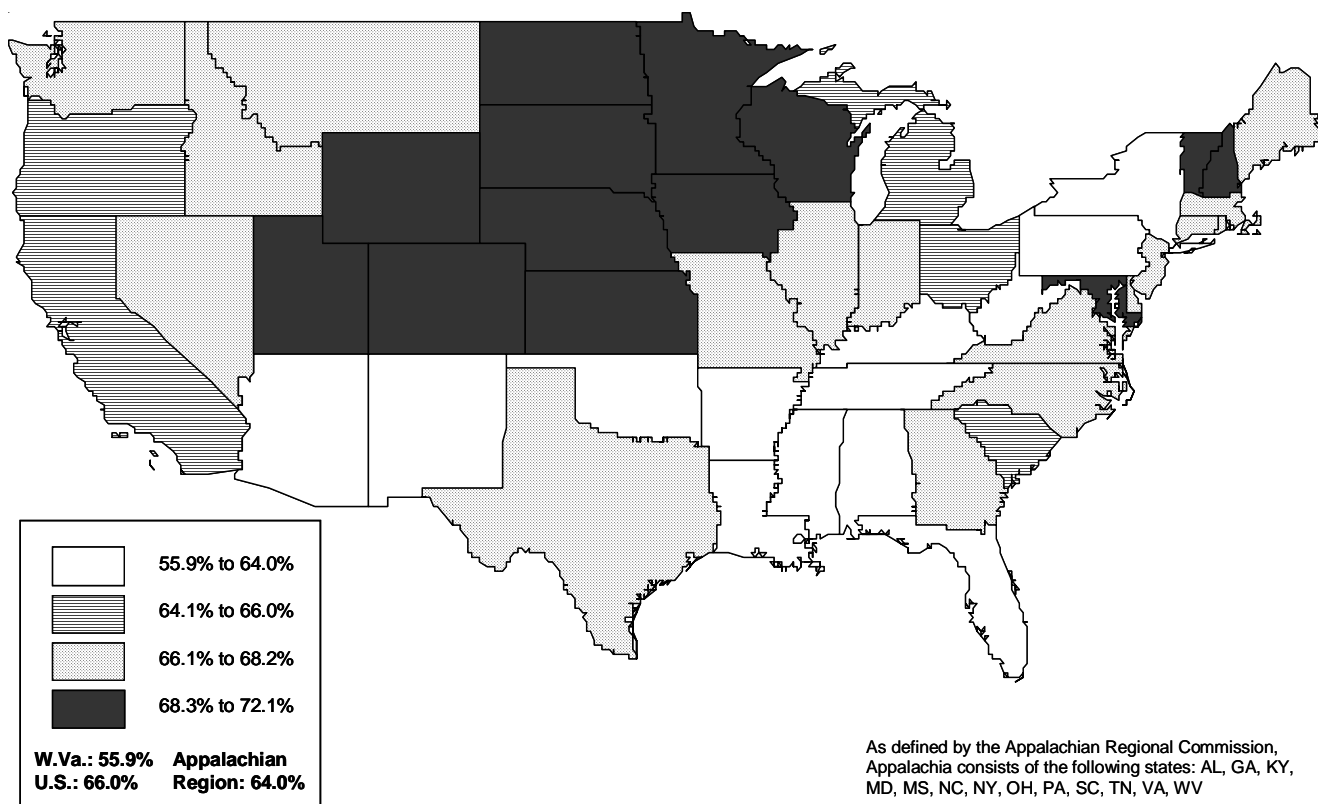
by George W. Hammond, Ph.D and Anthony Gregory, Graduate Research Assistant

Rebounding job gains during the last three years have helped drive the West Virginia unemployment rate down from 6.0 percent in 2003 to 5.0 percent in 2005. This has roughly tracked the national trend and the state rate in 2005 was very close to the national rate of 5.1 percent. By this measure, state labor market performance has been close to the national level so far this decade. However, it's important to remember that the unemployment rate reflects the activities of non-institutionalized residents age 16 and older who are actively participating in the labor market. This includes employed residents as well as unemployed residents who are actively seeking work. Unemployed residents who are not actively seeking work are not counted as unemployed and thus do

not appear in unemployment rate calculations.

A more comprehensive measure of labor market performance is the labor force participation rate, which is calculated as the ratio of a state's labor force (employed and unemployed) to its non-institutionalized population age 16 and older. According to the latest estimates from the U.S. Census Bureau for 2005, West Virginia's labor force participation rate is 55.9 percent. That is the lowest participation rate of any state in the nation and is also well below the 66.0 percent rate posted by the nation. As Figure 1 shows, low labor force participation rates are concentrated in states including Appalachian counties. States with high labor force participation rates are concentrated in the upper Midwest.

**Figure 1**  
**Labor Force Participation Rates, 2005**  
Civilian, Non-institutionalized Population, 16-and-over Years of Age  
Data from Census American Community Survey, 2005



There are a relatively large number of West Virginians that do not actively participate in labor market activities. Research on the determinants of labor force participation suggests that states with larger shares of the population aged 65-and-older tend to have lower levels of labor force participation.<sup>1</sup> This makes sense, of course, because many U.S. residents seek to retire at about age 65. This helps to explain why Florida and Arizona, with large retiree populations, have relatively low participation rates. This relationship between age and labor force participation is also troubling, because simulations published in the *West Virginia Long-Term Forecast Update 2006* suggest that the state's population age 65-and-older will rise by 36,000 during the next 10 years. This suggests increasing labor shortages in the state in the not too distant future.

A selection of other factors identified in the literature that affect labor force participation include educational attainment, family responsibilities (child-rearing responsibilities, especially for women), job growth in the labor market area, informal work opportunities (i.e. the underground economy), tax rates (including both income and business taxes), attachment to place (signaled by high home ownership rates), and transfer income (including disability status).

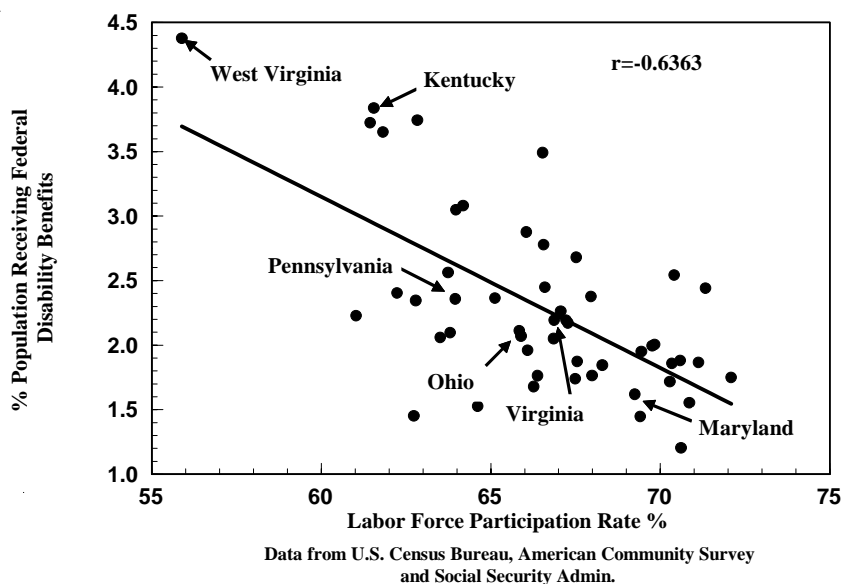
Disability status has been identified as an important influence on labor force participation. As Figure 2 shows, there is a strong negative correlation between the percent

of the population receiving federal disability benefits in 2005 and labor force participation.

But what should we make of this strong negative correlation? First, it is likely that states with high concentrations of risky industries will naturally have higher shares of residents receiving disability income. West Virginia, with large shares of employment in coal mining, logging, and heavy industry, likely falls in this group. The relatively high share of residents receiving disability payments in the state may also be due in part to rent seeking behavior on the part of some West Virginia residents. Rent seeking is economist jargon for "working the system."

What should West Virginians do to increase labor force participation and therefore improve the state's labor market performance? First, West Virginians need to focus on improving the state's human capital by investing in improved health and education. This will increase the competitiveness of the state's workforce and the industries located in the state. Second, the state should continue to prudently reduce tax rates on labor income and business taxes. This will improve returns to work (thus improving incentives to work) and increase business investment in the state. Third, as the state's residents age, it will be in our interest to improve workplace flexibility so that retirement-age workers are encouraged to remain attached to the labor force. Finally, state and federal governments should carefully oversee disability and workers compensation systems to ensure that residents receiving benefits are entitled to them.

**Figure 2**  
**Labor Force Participation Rate and**  
**Percent of Population Receiving Federal Disability Benefits**



<sup>1</sup> Isserman, Andrew and Terrance Rephann. 1993. "Geographical and Gender Differences in Labor Force Participation: Is There An Appalachian Effect?" *Growth and Change*, 24: 539-578.

Dorsey, Stuart. 1991. "The Strange Case of the Missing West Virginia Labor Force," *Growth and Change*, 22: 49-65.

# 2005 Gross Domestic Product by State: United States and West Virginia

by Amy Higginbotham

Economic activity increased throughout the United States in 2005. Gross domestic product (GDP) by state, one of the leading indicators of economic activity, increased in 2005, according to the Bureau of Economic Analysis (BEA). Growth in GDP by state occurred in all 50 states and the District of Columbia, with the fastest growth occurring in Wyoming, Nevada, Arizona, Utah, and Florida. The average growth for the nation was 6.5 percent.

You might be wondering what exactly GDP by state is and how it indicates economic growth. You might also be wondering what the level of GDP by state was for West Virginia and whether it is comparable with the rest of the nation. The answers to these questions are simple and are explained in this article.

## What is GDP by State?

GDP by state is the state counterpart of the nation's gross domestic product, which is the most comprehensive measure of the U.S. economic activity. According to the BEA, GDP by state, formally known as gross

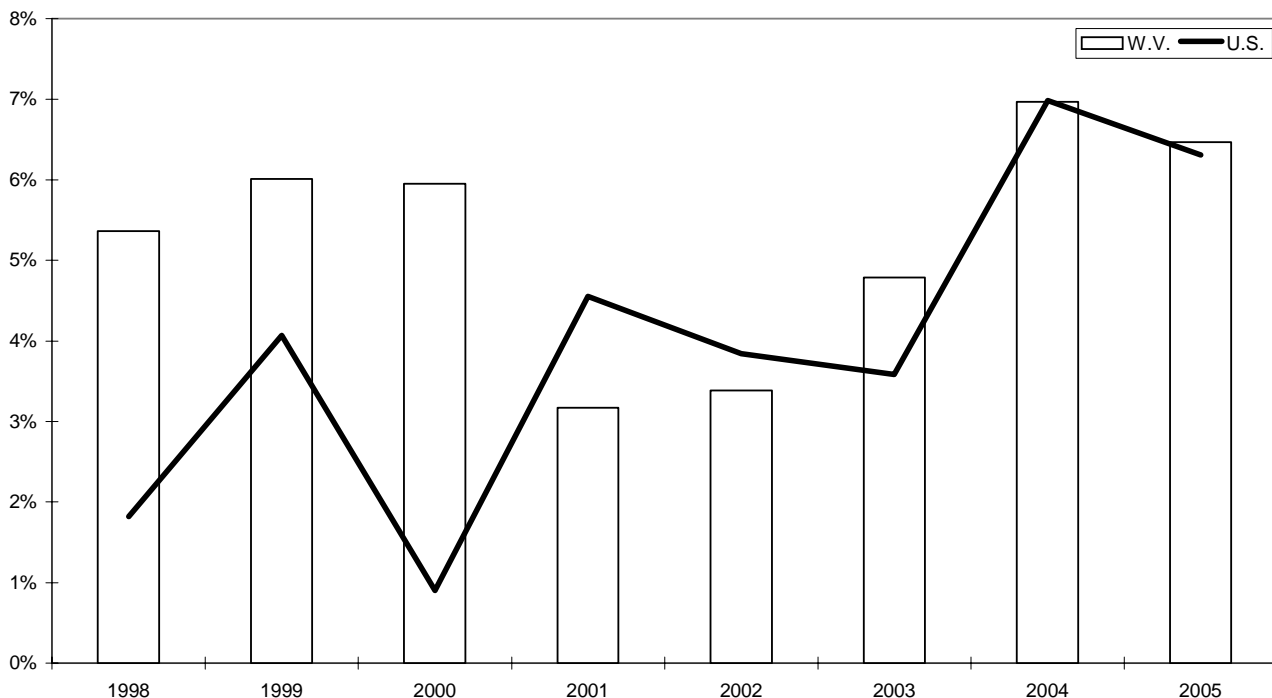
state product (GSP), is derived as the sum of the market value of goods and services produced by labor and property originating in all industries within a state. Real GDP by state, which is more commonly looked at, is an inflation-adjusted measure based on national prices for goods and services produced within that state.

GDP by state is also calculated for each industry within a state. An industry's GDP by state, also known as its value added, is calculated as the sum of incomes earned by labor and capital and the costs incurred in the production of goods and services. In simple terms, an industry's GDP by state includes the wages and salaries that workers earn, the income earned by individual or joint entrepreneurs as well as by corporations, and business taxes (sales, property, and federal excise taxes) that count as a business expense.

## GDP by State in the U.S.

For 2005, the U.S. had a GDP by state of \$12.4 trillion, which was an increase of 6.5% from 2004. Real GDP by state also increased in the U.S. from a level of

**Figure 1**  
**W.V. and U.S. GDP by State Growth**  
**1998 - 2005**



\$10.6 trillion in 2004 to \$11 trillion in 2005. Private services-providing industries accounted for most of the real growth in the U.S. In fact, the largest contributors to the growth in real GDP by state included the finance and insurance industry as well as the professional and technical service industry. Both of these industries grew by 6.5-7% in 2005.

### *GDP by State in West Virginia*

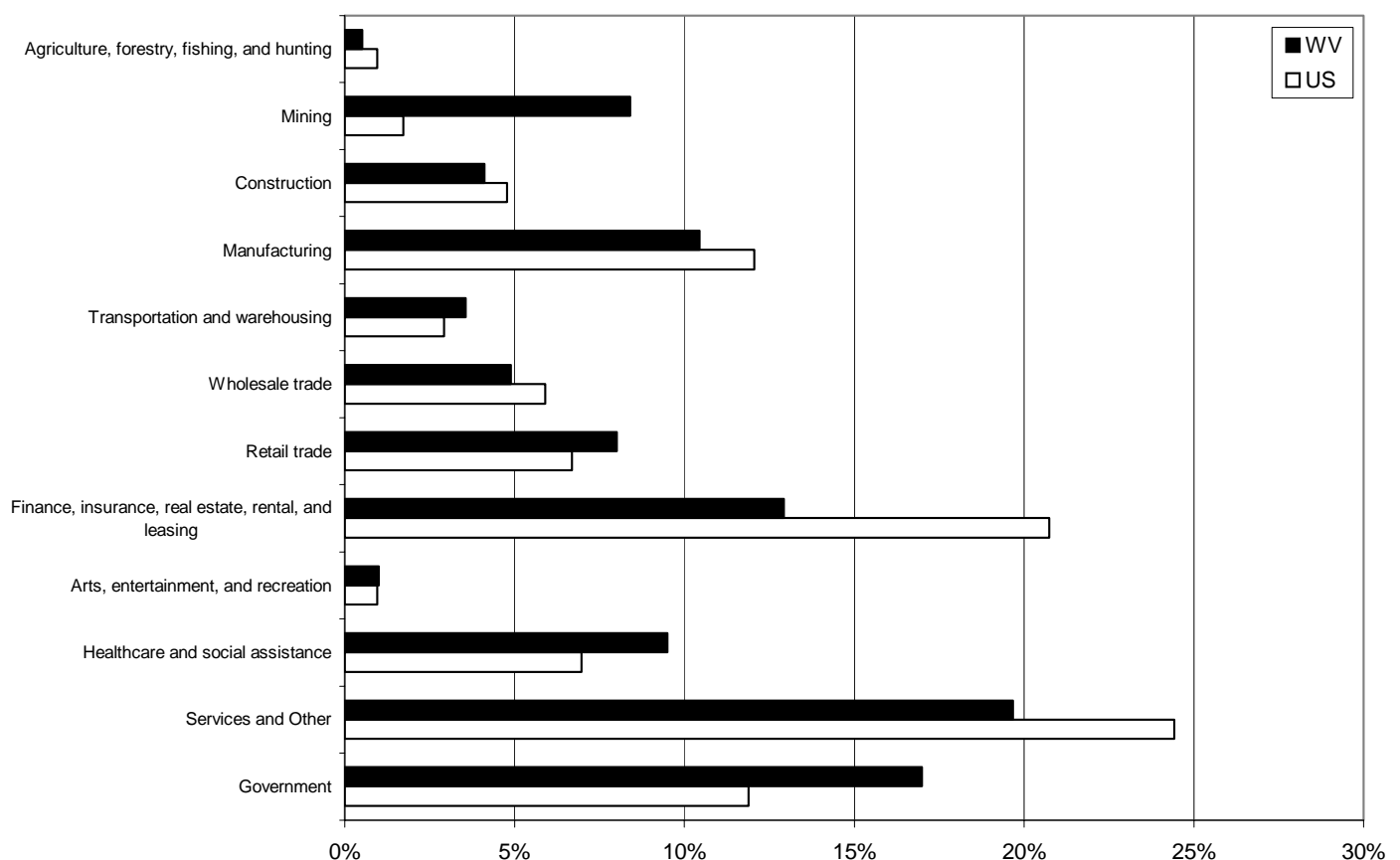
West Virginia, like the rest of the U.S., experienced an increase of economic activity in 2005. The West Virginia GDP by state increased to \$53 billion in 2005. This was a 6.3% increase, which fell right below the U.S. growth rate of 6.5%. In fact, for 2004 and 2005, West Virginia's growth in GDP by state has mirrored the growth rate for the U.S., as shown in Figure 1.

This increase in GDP by state for West Virginia was spurred by increases in private services-providing industries. As shown in Figure 2, the industries with the

highest shares of GDP by state for West Virginia in 2005 were the service industries followed closely by the government sector. Unlike the U.S., however, the mining and healthcare industries in West Virginia also accounted for large shares of the GDP by state. In fact, mining accounted for 8.4% of GDP by state in West Virginia and only 1.7% in the U.S. This shows that there is still a relative concentration of mining in West Virginia compared to the U.S. as a whole. In fact, mining's share of total GDP by state for West Virginia was the sixth highest in the nation with the highest occurring in Wyoming.

West Virginia's real GDP by state also experienced growth in 2005. Inflation-adjusted GDP by state increase by 2.1%, which is lower than the growth experienced in the nation. Of the surrounding states, West Virginia's real GDP by state increased by the lowest amount from 2004 to 2005. This has been a trend for the GDP by state in West Virginia. In fact, from 2000-2005, West

**Figure 2**  
**W.V. and U.S. Shares of Nominal GDP by State by Major Division**  
**2005**





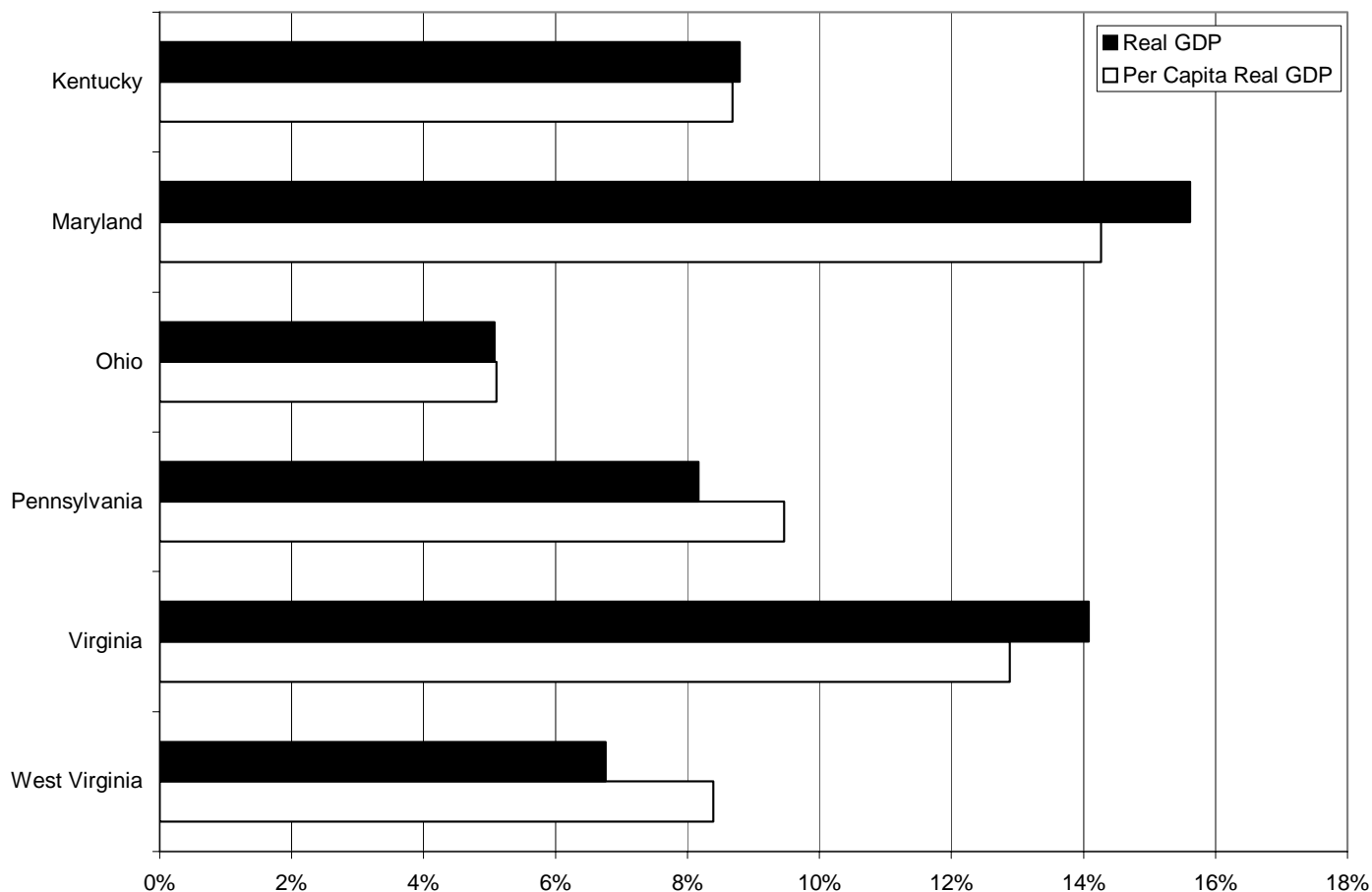
Virginia's real GDP by state was also one of the lowest of the surrounding states, as shown in Figure 3. West Virginia's per capita real GDP by state has also demonstrated the same trend. From 2000 to 2005, West Virginia's per capita real GDP by state was next to last of the surrounding states, with a growth rate of 8.4%. This level of growth was higher than real GDP by state for only West Virginia and Pennsylvania.

starting to resemble national trends and both economies depending more on the service sector for growth—will continue. The outlook for 2006 will be influenced by changes in employment as well as in consumer spending, fuel costs, and personal income levels, all of which have fluctuated over the year.

### *GDP by State in 2006*

The 2005 GDP by state for the nation and for West Virginia showed significant economic activity, but can we continue it into 2006? Also, one might ask whether the trends reported by the BEA—West Virginia's economy

**Figure 3**  
**Total Growth Rate**  
**Real GDP by State and per Capita by State**  
**2000 - 2005**





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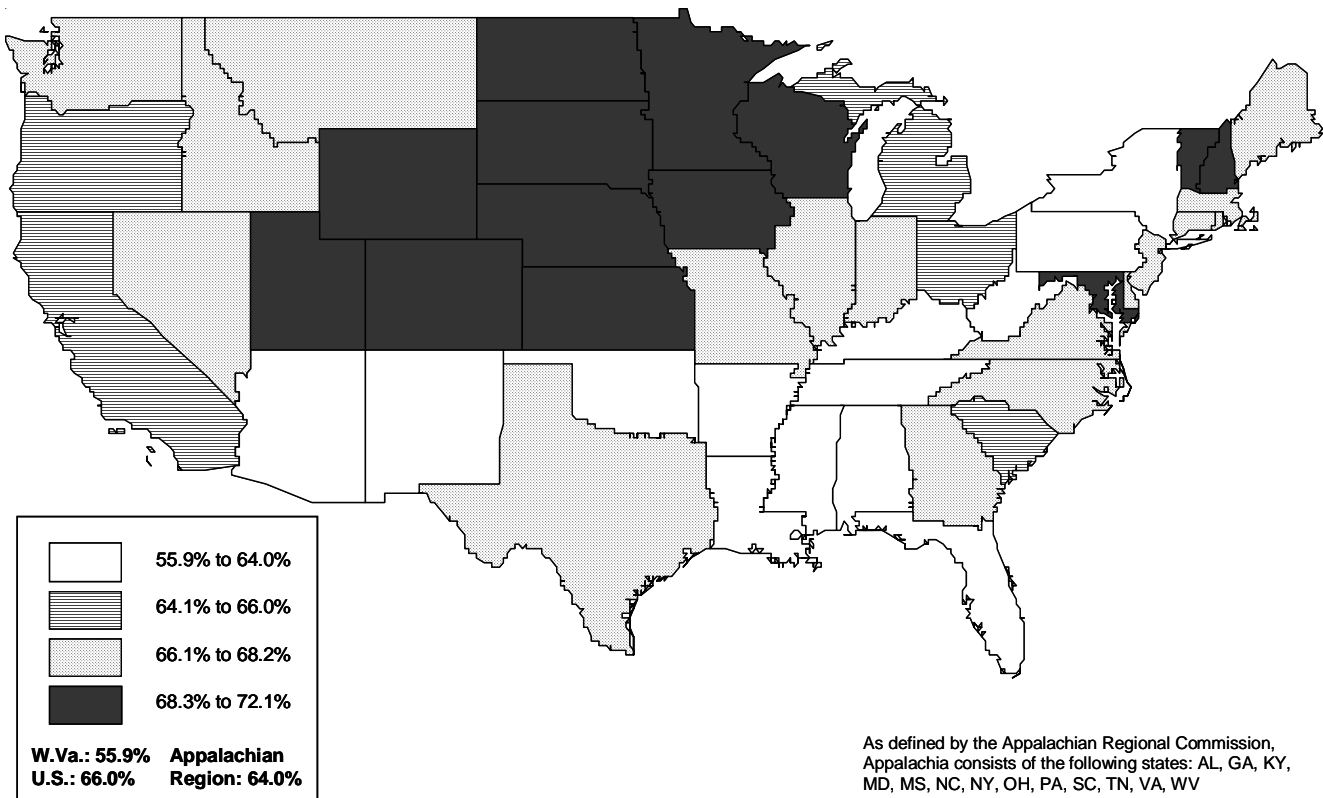
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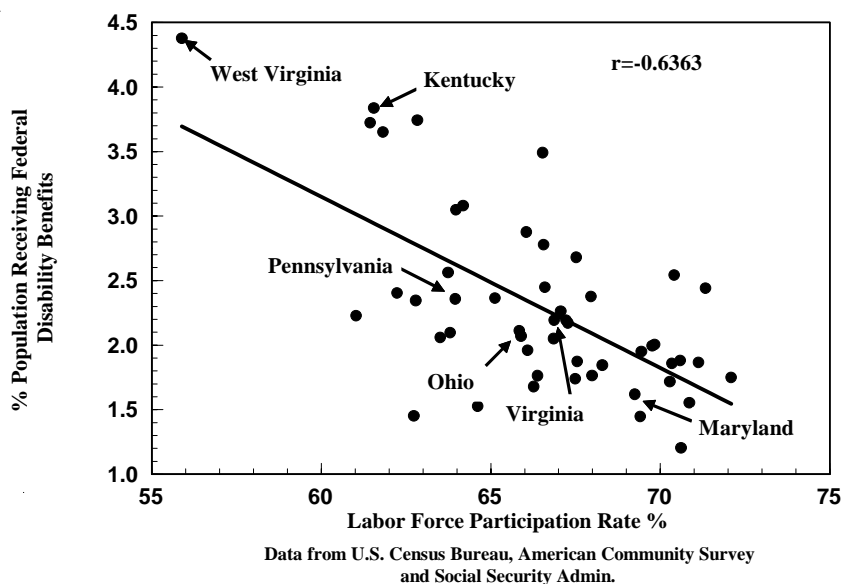
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by Amy Higginbotham

Economic activity increased throughout the United States in 2005. Gross domestic product (GDP) by state, one of the leading indicators of economic activity, increased in 2005, according to the Bureau of Economic Analysis (BEA). Growth in GDP by state occurred in all 50 states and the District of Columbia, with the fastest growth occurring in Wyoming, Nevada, Arizona, Utah, and Florida. The average growth for the nation was 6.5 percent.

You might be wondering what exactly GDP by state is and how it indicates economic growth. You might also be wondering what the level of GDP by state was for West Virginia and whether it is comparable with the rest of the nation. The answers to these questions are simple and are explained in this article.

## What is GDP by State?

GDP by state is the state counterpart of the nation's gross domestic product, which is the most comprehensive measure of the U.S. economic activity. According to the BEA, GDP by state, formally known as gross

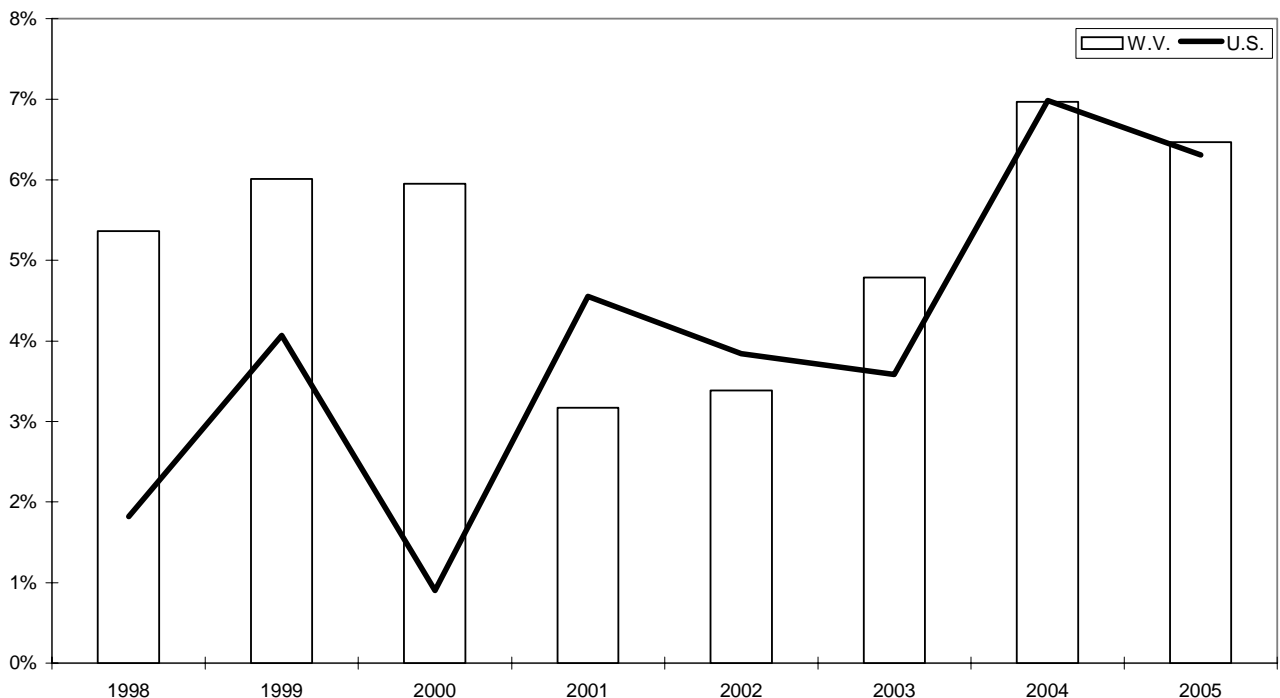
state product (GSP), is derived as the sum of the market value of goods and services produced by labor and property originating in all industries within a state. Real GDP by state, which is more commonly looked at, is an inflation-adjusted measure based on national prices for goods and services produced within that state.

GDP by state is also calculated for each industry within a state. An industry's GDP by state, also known as its value added, is calculated as the sum of incomes earned by labor and capital and the costs incurred in the production of goods and services. In simple terms, an industry's GDP by state includes the wages and salaries that workers earn, the income earned by individual or joint entrepreneurs as well as by corporations, and business taxes (sales, property, and federal excise taxes) that count as a business expense.

## GDP by State in the U.S.

For 2005, the U.S. had a GDP by state of \$12.4 trillion, which was an increase of 6.5% from 2004. Real GDP by state also increased in the U.S. from a level of

**Figure 1**  
**W.V. and U.S. GDP by State Growth**  
**1998 - 2005**



\$10.6 trillion in 2004 to \$11 trillion in 2005. Private services-providing industries accounted for most of the real growth in the U.S. In fact, the largest contributors to the growth in real GDP by state included the finance and insurance industry as well as the professional and technical service industry. Both of these industries grew by 6.5-7% in 2005.

### *GDP by State in West Virginia*

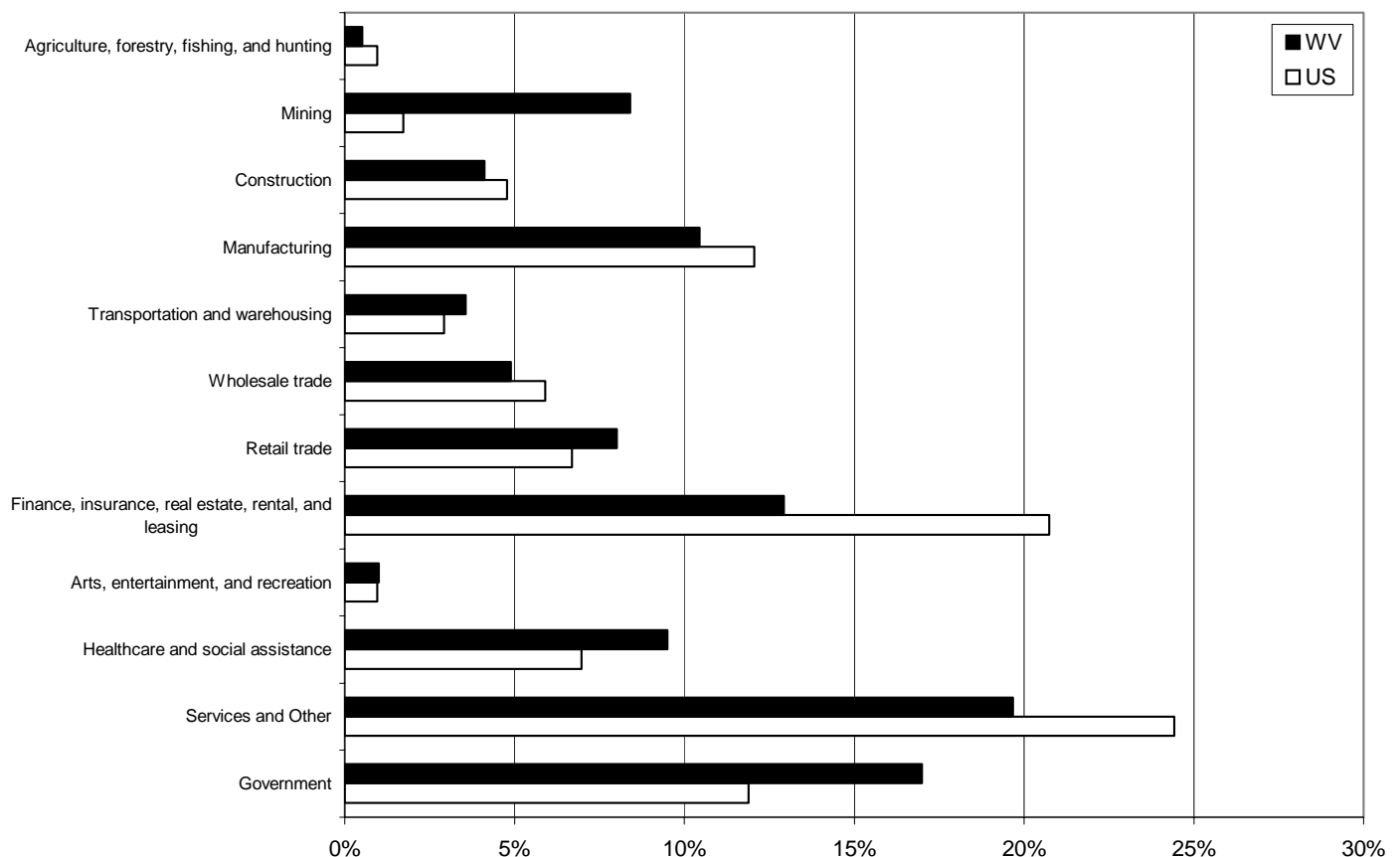
West Virginia, like the rest of the U.S., experienced an increase of economic activity in 2005. The West Virginia GDP by state increased to \$53 billion in 2005. This was a 6.3% increase, which fell right below the U.S. growth rate of 6.5%. In fact, for 2004 and 2005, West Virginia's growth in GDP by state has mirrored the growth rate for the U.S., as shown in Figure 1.

This increase in GDP by state for West Virginia was spurred by increases in private services-providing industries. As shown in Figure 2, the industries with the

highest shares of GDP by state for West Virginia in 2005 were the service industries followed closely by the government sector. Unlike the U.S., however, the mining and healthcare industries in West Virginia also accounted for large shares of the GDP by state. In fact, mining accounted for 8.4% of GDP by state in West Virginia and only 1.7% in the U.S. This shows that there is still a relative concentration of mining in West Virginia compared to the U.S. as a whole. In fact, mining's share of total GDP by state for West Virginia was the sixth highest in the nation with the highest occurring in Wyoming.

West Virginia's real GDP by state also experienced growth in 2005. Inflation-adjusted GDP by state increase by 2.1%, which is lower than the growth experienced in the nation. Of the surrounding states, West Virginia's real GDP by state increased by the lowest amount from 2004 to 2005. This has been a trend for the GDP by state in West Virginia. In fact, from 2000-2005, West

**Figure 2**  
**W.V. and U.S. Shares of Nominal GDP by State by Major Division**  
**2005**





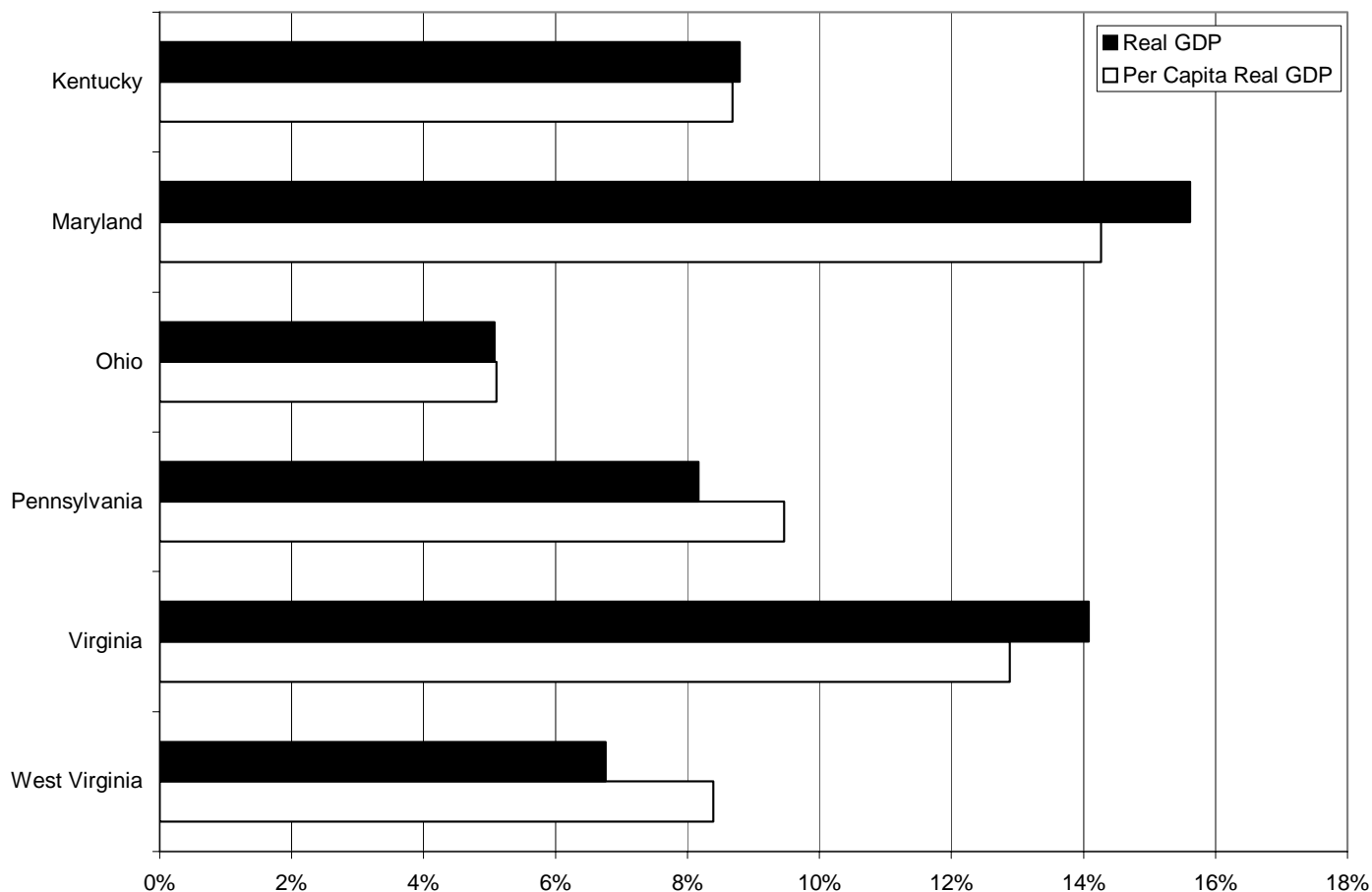
Virginia's real GDP by state was also one of the lowest of the surrounding states, as shown in Figure 3. West Virginia's per capita real GDP by state has also demonstrated the same trend. From 2000 to 2005, West Virginia's per capita real GDP by state was next to last of the surrounding states, with a growth rate of 8.4%. This level of growth was higher than real GDP by state for only West Virginia and Pennsylvania.

starting to resemble national trends and both economies depending more on the service sector for growth—will continue. The outlook for 2006 will be influenced by changes in employment as well as in consumer spending, fuel costs, and personal income levels, all of which have fluctuated over the year.

### *GDP by State in 2006*

The 2005 GDP by state for the nation and for West Virginia showed significant economic activity, but can we continue it into 2006? Also, one might ask whether the trends reported by the BEA—West Virginia's economy

**Figure 3**  
**Total Growth Rate**  
**Real GDP by State and per Capita by State**  
**2000 - 2005**







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